



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,026	02/09/2005	Tsutomu Niiho	2005_0184A	4884

52349 7590 09/11/2007
WENDEROTH, LIND & PONACK L.L.P.
2033 K. STREET, NW
SUITE 800
WASHINGTON, DC 20006

EXAMINER

STAMBOVSKY, HIBRET A

ART UNIT	PAPER NUMBER
----------	--------------

2609

MAIL DATE	DELIVERY MODE
-----------	---------------

09/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/524,026

Applicant(s)

NIIHO ET AL.

Examiner

Hibret A. Stambovsky

Art Unit

2609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 22 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "METHOD AND SYSTEM FOR EXTENDING COVERAGE OF WLAN ACCESSPOINT VIA OPTICALY MULTIPLEXED CONNECTION OF ACCESS POINT TO EXTENSION STATIONS".

Priority

1. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows:

An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence(s) of the specification or in an application data sheet by identifying the prior application by application number (37 CFR 1.78(a)(2) and (a)(5)). If the prior application is a non-provisional application, the specific reference must also include the relationship (i.e., continuation, divisional, or continuation-in-part) between the applications except when the reference is to a prior application of a CPA assigned the same application number.

Double Patenting

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re*

Art Unit: 2609

Ockert, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Claim 3 objected to under 37 CFR 1.75 as being a substantial duplicate of Claim 2. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Examiner's Comments

A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Therefore the following office action has been written without giving the preamble of claim 1 and 28 patentable weight.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2609

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 2,4,7- 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Schwartz et al. (6,801,767).

Considering claim 1, Schwartz discloses a wireless access system (**See Abstract line 1-2 Col. 9 line 64-67 Col. 2 line 25-30 i.e. a method and system for distributing wireless communication signals**).

Schwartz also discloses a master station for converting signal in a downstream direction inputted from the host device into an optical signal (**See abstract line. 2-8, figure 2A, Col. 3 line 35-40 i.e. main unit for converting input signal to optical signal**) and sending out the optical signal to an optical fiber transmission line (**See Col. 9 line 35-40 i.e. optical fiber transmission line for transmitting optical signal**), and for converting an optical signal in an upstream direction (**See Col. 4 line. 30-35 i.e. upstream is the same as Uplink**) inputted through the optical fiber transmission line into an electrical signal and outputting the electrical signal to the host device(**See Col. 2. line 61-65 i.e. main unit for converting optical signal to another form of signal**); a plurality of slave stations each for converting an electrical signal in the upstream direction received from any one of the terminals in a wireless communications area into an optical signal (**See Col. 5 line 10-24, Col. 9 lines35-50, Col. 12 lines 5-30 i.e. for converting signals to uplink optical signal**) and sending out the optical signal to the optical fiber transmission line(**See Col. 9 lines35-50, Col. 12 lines 5-30 i.e. sending signals to optical fiber**), and for converting an optical signal in the downstream direction inputted through the optical fiber transmission line into an electrical signal (**See**

Art Unit: 2609

Col.2 line 60-65 Col 4 line 58-65 i.e. a remote unit for converting optical signal to another form of signal) and sending out the electrical signal to the wireless communications area(**See Col. 4 line55-57 i.e. RF-uplink-interface for transmitting signals to a wireless communications network**); and

an access control section for transmitting an optical signal (**See Col. 4 line 23-40 i.e. expansion unit as a transmission media**) in the downstream direction

(**See Fig. 2A (204) Col. 2 55-60 i.e. downlink direction**) sent out from the master station, to each of the plurality of slave stations through the optical fiber transmission line, **transmitting** an optical signal in the upstream direction (**See Col. 2 line 25-32 Col. 8 line 65-67, Col 9. line 1-3, Fig 2A-2D i.e. optical fiber transmission line**) sent out from any one of the plurality of slave stations, to the master station through the optical fiber transmission line (**See Col. 2 line 25-30 Col. 8 line 65-67, Col 9. line 1-3, Fig 2A-2D i.e. optical fiber transmission line a method for transmitting optical signal**), and notifying all other slave stations that the one of the slave stations has outputted the optical signal in the upstream direction (**See Col. 5, line 30-35 i.e. a means of detecting**).

Consider Claims 28, Schwartz discloses a wireless access method performed by a system using Carrier Sense Multiple Access for Media Access Control of a host device by terminals (**See abstract line 1-2, Col. 9 line 64-67 i.e. a method for distributing wireless communication signals**), the method comprising:

Connecting the host device and the terminals via a master station and a plurality of slave stations (**See Col. 9 line 30-50 i.e. a method for connecting the main unit,**

expansion unit and remote unit); transmitting a signal in a downstream direction outputted from the host device, to the plurality of slave stations from the master station through a predetermined transmission line **(See Col. 9 line 35-40, Col. 2 line 25-30 i.e. a method for transmitting signals);** and transmitting a signal in an upstream direction received by a specific slave station from any one of the terminals in a wireless communications area, to the master station and other slave stations through the predetermined transmission line **(See Col. 9 line 35-40, Col. 2 line 25-30 i.e. WLAN a method for transmitting signals)**

Considering claim 2 and 3, Schwartz discloses, the wireless access system according to claim 1, wherein the access control section comprises an optical multiplexing/demultiplexing section for allowing an optical signal in the downstream direction sent out from the master station to be demultiplexed and transmitting the demultiplexed optical signals to the plurality of slave stations, and for allowing the optical signal in the upstream direction sent out from the one of the slave stations to be demultiplexed and transmitting the demultiplexed optical signals to the master station and the all other slave stations. **(See Col 4, line 23-36 i.e. In expansion unit, optical signal transmitted from the main unit and split into multiple optical signal and transmitted to remote units then transmitted back to the main unit)**

Considering claim 4, Schwartz discloses, the wireless access system according to claim 1, wherein the access control section comprises an optical multiplexing/demultiplexing section for allowing an optical signal in the downstream direction sent out from the master station to be demultiplexed **(Col. 6 line 65-67 i.e.**

Art Unit: 2609

optical splitting means for splitting the optical signal to multiple secondary-optical-signals) and transmitting the demultiplexed optical signals to the plurality of slave stations, and for outputting an optical signal in the upstream direction sent out from the one of the slave stations to the master station, and **(See Col 4, line 23-39 i.e. In expansion unit, optical signals transmitted from the main unit and split into multiple optical signals transmitted to remote units then transmitted back to the main unit)** the master station superimposes the optical signal in the upstream direction sent out from the one of the slave stations onto an optical signal in the downstream direction **(See Col 7, line 5-8, line 32-35 i.e. optical-combining element for combining optical signals)** and returns the superimposed optical signal back to the optical multiplexing/demultiplexing section. **(See Col. 4 line 34-39 i.e. transmitting combined optical signals)**

Considering Claim 7, Schwartz inherently discloses, the wireless access system according to claim 2, wherein the optical multiplexing/demultiplexing section is an omnidirectional distribution **(See Col. 19, 60-65; Col 20. line 9-35 i.e antenna to distribute signal)** optical multiplexer/demultiplexer including at least an optical port connected to the master station and a plurality of optical ports connected to the plurality of slave stations, respectively, **(See Col 9 line 35-50 i.e. primary and secondary optical fiber)** and having formed therein an optical transmission path through which an optical signal inputted to any one of the optical ports is outputted to all other optical ports **(See Col. 2 line 25-30 Col. 8 line 65-67, Col 9. line 1-3, Fig 2A-2D i.e. optical fiber transmission line).**

Art Unit: 2609

Considering Claim 8, Schwartz inherently discloses a method of combining and sending optical signals in a loop, the wireless access system according to claim3, wherein the optical multiplexing/demultiplexing section is a loopback optical coupler including at least an optical port connected to the master station, a plurality of optical ports connected to the plurality of slave stations, respectively, **(See Col. 7, line 32-35 i.e. optical combining element; Col. 4 line 23-36 i.e. optical signal transmitted from and back to the main unit)** and two optical ports **(See Col 9 line 35-50 i.e. primary and secondary optical fiber)** connected to each other by a loop and having formed therein an optical transmission path through which an optical signal inputted to any one of the optical ports from any one of the slave stations is outputted to the plurality of slave stations through the two optical ports connected to each other by a loop **(See Col. 2 line 25-32 Col. 8 line 65-67, Col 9. line 1-3, Fig 2A-2D i.e. optical fiber transmission line).**

Claim 9, Schwartz discloses, the wireless access system according to claim3, wherein the optical multiplexing/demultiplexing section is a reflection optical coupler **(See Col. 7, line 32-35 i.e. optical combining element in the main unit)** including at least an optical port connected to the master station, a plurality of optical ports connected to the plurality of slave stations, respectively, **(See Col 9 line 35-50 i.e. primary and secondary optical fiber)** and one optical port processed to be light reflective and having formed therein an optical transmission path through which an optical signal inputted to any one of the optical ports from any one of the slave stations is outputted to the plurality of slave stations through the one optical port processed to be

Art Unit: 2609

light reflective(See Col. 2 line 25-30 Col. 8 line 65-67, Col 9. line 1-3, Fig 2A-2D i.e. **optical fiber transmission line**).

Claim 10, Schwartz inherently discloses, the wireless access system according to claim7, wherein the optical multiplexing/demultiplexing section is composed of a combination of a plurality of optical multiplexing/demultiplexing units each including three optical ports (See Col. 9 line 25-50 i.e. **main unit, remote unit as optical port and expansion unit since each unit is connected to optical fiber to transmit optical signal**) and having formed therein an optical transmission path through which an optical signal inputted to any one of the optical ports is outputted to all other Optical ports(See Col. 2 line 25-30 Col. 8 line 65-67, Col 9. line 1-3, Fig 2A-2D i.e. **optical fiber transmission line**).

Considering Claim 11, Schwartz discloses, the wireless access system according to claim7, wherein the optical multiplexing/demultiplexing section is formed of a plurality of optical couplers(See Col. 7, line 32-35 i.e. **optical combining element**).

Considering Claim 12, Schwartz discloses, the wireless access system according to claim 10, wherein the optical multiplexing/demultiplexing unit is formed of a plurality of optical couplers(See Col. 7, line 32-35 i.e. **optical combining element**).

Considering Claim 13, Schwartz discloses, the wireless access system according to claim7, wherein the optical multiplexing/demultiplexing section is formed of an optical waveguide(See Col. 2 line 25-30 Col. 8 line 65-67, Col 9. line 1-3, Fig 2A-2D i.e. **optical fiber for guiding optical signals**).

Considering Claim 14, Schwartz discloses, the wireless access system according to claim 10, wherein the optical multiplexing/demultiplexing unit is formed of an optical waveguide. **(See Col. 2 line 25-30 Col. 8 line 65-67, Col 9. line 1-3, Fig 2A-2D i.e. optical fiber for combining and guiding optical signals).**

Considering Claim 15, Schwartz inherently discloses, The wireless access system according to claim 3, wherein the one of the slave stations cancels its own optical signal in the upstream direction which has been returned back thereto from the optical multiplexing/demultiplexing section. **(See Col. 7 line 44-50 i.e. filters, Col. 8 line 35-44 i.e. switches to prevent signals from transmitting)**

Considering Claim 16, Schwartz inherently discloses, the wireless access system according to claim 4, wherein the one of the slave stations cancels its own optical signal in the upstream direction which has been returned back thereto from the optical multiplexing/demultiplexing section. **(See Col. 7 line 44-50 i.e. filters to eliminate signals, Col. 8 line 35-44 i.e. switches to prevent signals from transmitting)**

Considering Claim 17, Schwartz discloses, the wireless access system according to claim 1,

Wherein the master station comprises: a first high-frequency amplification section for amplifying the electrical signal in the downstream direction inputted from the host device **(See Col. 18, line 30-45 i.e. a downlink RF – amplifier for amplifying signals);** an optical reception section for converting the optical signal in the upstream direction received from the access control section into an electrical signal **(See Col. 18 line 65-67 and Col 19. line 1 i.e. Optical to RF converters in the expansion unit for**

converting the optical signal);

an optical transmission section for converting the electrical signal amplified by the first high-frequency amplification section into an optical signal (**See Col. 19, line 3-6 i.e. a uplink RF to optical converter for converting to optical signal**); and

a second high-frequency amplification section for amplifying the electrical signal converted by the optical reception section(**See Col. 19, line 1-5 i.e. a uplink RF-amplifier for amplifying signals**).

Considering Claim 18, Schwartz discloses, the wireless access system according to claim4, where in the master station comprises: a first high-frequency amplification section for amplifying the electrical signal in the downstream direction inputted from the host device(**See Col. 18, line 30-45 i.e. a downlink RF – amplifier for amplifying signals**); an optical reception section for converting the optical signal in the upstream direction received from the access control section into an electrical signal (**See Col. 18 line 65-67 and Col 19. line 1 i.e. Optical to RF converters in the expansion unit for converting the optical signal**); a multiplexing section for allowing the electrical signal converted by the optical reception section and the electrical signal amplified by the first high-frequency amplification section to be multiplexed together(**See Col. 19, line 1-5 i.e. an uplink RF-combiner for combining signals**); an optical transmission section for converting the electrical signals multiplexed by the multiplexing section into an optical signal(**See Col. 19, line 3-6 i.e. a uplink RF to optical converter for converting to optical signal**); and a second high-frequency amplification section for amplifying the

Art Unit: 2609

electrical signal converted by the optical reception section(See Col. 19, line 1-5 i.e. a **uplink RF-amplifier for amplifying signals**).

Considering Claim 19, Schwartz discloses. The wireless access system according to claim 17, wherein the master station further comprises: a transmitted/received signal multiplexing/separation section for allowing the electrical signal in the downstream direction inputted to the first high-frequency amplification section and an electrical signal in the upstream direction outputted from the second high-frequency amplification section to be multiplexed together onto one transmission line. (See Col. 19, line 7-25 i.e. **WDM filter to transmit downlink and uplink signal together in a single line**)

Considering Claim 20, Schwartz discloses, the wireless access system according to claim 17, wherein the master station further comprises: an optical signal multiplexing/separation section for allowing the optical signal in the downstream direction transmitted from the optical transmission section and the optical signal in the upstream direction received by the optical reception section to be multiplexed together onto one optical fiber transmission line (See Col. 19, line 7-25 i.e. **WDM filter to transmit downlink and uplink signal together in a single optical fiber**)

Considering Claim 21, Schwartz discloses. The wireless access system according to claim 1, wherein the slave stations each comprise: an optical reception section for converting the optical signal in the downstream direction received from the access control section into an electrical signal (See Col. 4 line 58- 62, Col. 14 line 14-17 i.e. **a remote unit comprising a downlink optical to RF- converter for converting**

Art Unit: 2609

optical signal in the downlink); a first high-frequency amplification section for amplifying an electrical signal in the upstream direction received from any one of the terminals(See Col. 14 line 20-25 i.e. **a remote unit comprising RF-amplifier**); a second high-frequency amplification section for amplifying the electrical signal converted by the optical reception section(Col. 14 line 20-25 i.e. **a remote unit comprising uplink RF-amplifier Col. 15 line 17-30**); and an optical transmission section for converting electrical signal amplified by the first high-frequency amplification section into an optical signal(See Col. 17 line 1-5 i.e. **a remote unit comprising RF to optical converter**).

Consider Claim 22 and 23, Schwartz discloses the wireless access system according to claim 15 and 16, wherein the slave stations each comprise:
an optical reception section for converting the optical signal in the downstream direction received from the access control section into an electrical signal (See Col. 4 line 58-62, Col. 14 line 14-17 i.e. **a remote unit comprising a downlink optical to RF-converter for converting optical signal in the downlink**);
a first high-frequency amplification section for amplifying an electrical signal in the upstream direction received from any one of the terminals(See Col. 14 line 20-25 i.e. **a remote unit comprising RF-amplifier**); a phase inversion section for inverting a phase of the electrical signal amplified by the first high-frequency amplification section(See Col. 1, line 42-45 i.e. **)**); a delay section for imparting a predetermined amount of delay to the electrical signal whose phase has been inverted by the phase inversion section(See Col 3 line 10-20 i.e. **a spatial separation**);

Art Unit: 2609

a multiplexing section for allowing the electrical signal converted by the optical reception section and the electrical signal delayed by the delay section to be multiplexed together(**See Col. 3 line 22-31 i.e. a remote unit for combining signals**); a second high-frequency amplification section for amplifying the electrical signals multiplexed by the multiplexing section (**See Col. 3 line 22-32 i.e. remote unit for amplifying signals**); and an optical transmission section for converting the electrical signal amplified by the first high-frequency amplification section into an optical signal(**See Col. 3 line 29-35 i.e. remote unit for converting to optical signals**).

Consider Claim 24, Schwartz discloses, the wireless access system according to claim 21, wherein the slave stations each further comprise an optical signal multiplexing/separation section for allowing an optical signal in the upstream direction transmitted from the optical transmission section and the optical signal in the downstream direction received by the optical reception section to be multiplexed together onto one optical fiber transmission line (**See Col. 19 line 7-25, Col. 17, line 60-64, Col. 18 line 1-14 i.e. downlink and uplink optical signal transmitted on a single optical fiber**).

Consider Claim 25, Schwartz discloses, the wireless access system according to claim 21, wherein the slave stations each further comprise a transmitted/received signal multiplexing/separation section for allowing the electrical signal in the upstream direction inputted to the first high-frequency amplification section and an electrical signal in the downstream direction outputted from the second high-frequency amplification

Art Unit: 2609

section to be multiplexed together onto a wireless transmission line by means of one antenna. **(See Col. 19, line 60-65 i.e. antenna)**

Consider Claim 26 and 27, Schwartz discloses, the wireless access system according to claim 20 and 24, wherein the optical signal multiplexing/separation section performs wavelength division multiplexing **(See Col. 18 line 14- 30, Figure 4A i.e. performing wavelength division multiplexing).**

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz et al. (6801767) in view of Chen et al. (7177294).

Consider Claim 5, Schwartz discloses, the wireless access system according to claim 1, wherein section comprises an optical section for allowing an optical signal in the downstream direction sent out from the master station to be demultiplexed and transmitting the demultiplexed optical signals to the plurality of slave stations **(See Col 4, line 23-31 i.e. optical signals transmitted from the main unit split into multiple optical signals and transmitted to remote units)**, and for outputting an optical signal in the upstream direction sent out from the one of the slave stations to the master

Art Unit: 2609

station(See Col 4, line 23-39 i.e. uplink optical signals from the remote units transfer back to the main unit),

Schwartz does not specifically disclose a Request to Send (RTS) packet or Clear to Send (CTS) packet. Chen teaches a Request to Send (RTS) packet or Clear to Send (CTS) packet (See Col. 16 lines 25-60 i.e. WLAN Network Stations send a RTS to WLAN Access point or Control Point Device. WLAN Access point or Control Point Device transmits a CTS packet to WLAN Network Stations. WLAN Network Stations transmit a RTS packet to WLAN Access point after receiving a CTS packet).

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Schwartz, and have a Request-to-Send packet and a Clear to Send packet, as taught by Chen, thus allowing more efficient wireless protocols (See Col. 2 line 31-42)

Consider Claim 6, Chen discloses, the wireless access system according to claim5, wherein the Clear-to-Send packet includes at least information about authorizing the one of the terminals to start transmission and information about allowing all other terminals to stop transmission for a predetermined period of time (See Col. 16 line 25-38 i.e. Request to Send and Clear to Send header).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hibret A. Stambovsky whose telephone number is 5712701947. The examiner can normally be reached on increase flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on 5712727876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2609

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


NICK CORSARO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Hibret A Stambovsky
Examiner
Art Unit 2609